## WHAT IS CLAIMED IS:

1. A mat-shaped thermal insulator made of inorganic fiber, wherein at least a part of inorganic fibers is built-up in a direction parallel to lateral surfaces of the insulator, and

said insulator is formed by

cutting a fibrous built-up article formed by building-up inorganic fibers, to form cut built-up articles,

rotating at least one of the cut articles by an angle of 90 degrees in a direction perpendicular to a longitudinal direction, to form a rotated built-up article in which the inorganic fibers are built-up in a direction parallel to lateral sides of the cut article, and

integrating the cut articles and/or the rotated article transversally in a direction perpendicular to cutting direction.

- 2. The thermal insulator according to claim 1, wherein the lateral surfaces of the insulator are inclined.
- 3. The thermal insulator according to claim 1 or 2, wherein longitudinal cuts are formed on the lateral surfaces of the insulator so as to make the insulator partially compressible.
- 4. The thermal insulator according to claim 1, 2 or 3, wherein at least one of the surfaces of the insulator is coated by a facing material.
- 5. The thermal insulator according to claim 4, wherein said insulator and the facing material are bonded to each other by means of an adhesive agent, and the adhesive agent is partially applied to the insulator and/or the facing material.
- 6. The thermal insulator according to claim 4, wherein said insulator and the facing material are bonded to each other by means of an adhesive agent, and the adhesive agent is entirely applied to surfaces of the insulator and/or the facing material.
- 7. A package of mat-shaped inorganic fiber thermal insulators, wherein

said package comprises a packaging bag and aligned thermal insulating articles packaged in the packaging bag,

said aligned articles are compressed transversally,

said aligned articles are formed by arranging a plurality of mat-shaped inorganic fiber thermal insulators according to claim 1, 2, 3, 4, 5 or 6, in parallel and/or by laying the insulators one on the other, and

in each of said mat-shaped inorganic fiber thermal insulators, inorganic fibers are built-up in a direction of a width of the aligned article.

8. A thermally insulating structure comprising a first structure, a second structure and a mat-shaped inorganic fiber thermal insulator arranged between the first and second structures, wherein

inorganic fibers of the thermal insulator are arranged in parallel with the first and second structures, and built-up, so that the thermal insulator can be compressed in a direction perpendicular to a building-up direction, and

a dimension of the thermal insulator in the direction perpendicular to the building-up direction is greater than a gap between the first and second structures.